

MYTILUS (NOW ANODONTA) ANATINUS LINNAEUS, 1758
(MOLLUSCA BIVALVIA): PROPOSED DESIGNATION OF A NEOTYPE
IN CONFORMITY WITH THE INTENTIONS OF ITS ENTRY ON THE
OFFICIAL LIST. Z.N.(S.) 1643

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The intention of the present application is to preserve the specific name *Anodonta anatina* (Linnaeus, 1758) for use in its accustomed sense—and in accordance with the intentions of the Commission when, in 1955, that name was placed on the Official List of Specific Names in Zoology as name no. 426 (Opinion 336).

The name *Mytilus anatinus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 706) was based on an unknown number of specimens and some references. Hanley (1855—*Ipsae Linn. Conch. Lond.* : 144) showed that the specimen in the Coll. Linnaeana in London (generally regarded as the type) belonged to the species now mostly called *complanata* Rossmäessler, 1835 (*Icon. Land- & Süßw. Moll.* 1 : 112) and usually referred to the genus *Pseudanodonta*. Another specimen is in the Museum Ludovicae Ulricae Reg. now in Uppsala in Sweden, and was investigated by N. Odhner in 1927. He found this specimen, too, to belong to *complanata* and left a written record on it at the museum but never published his finding.

As a small "rivulet variety" of one of the two larger species of *Anodonta* s. str. exists, which may be close in appearance to specimens of *complanata*, confusions between these two species have been innumerable. In order to keep them apart in the following discussion without involving their specific names, I shall refer to them as "*Pseudanodonta* sp." and "*Anodonta* sp.", resp.

Hanley's statement that the London specimen was a "*Pseudanodonta* sp." has been completely ignored by specialists, and the name has been consistently applied to the "*Anodonta* sp."—except that a certain minority of authors have used the name *piscinalis* Nilsson, 1822 (*Hist. Moll. Suecicae* :116).

If matters had remained like that until the true position was cleared up before the Commission, I would not hesitate to ask for the complete suppression of the name *anatina* Linnaeus as a misapplied name, leaving the next available names to become valid for the two confused species: *piscinalis* and *complanata*.

Unfortunately, the Swedish malacologists knowing about these matters were not aware of what happened when Mr. E. A. Ellis presented his application for the protection of quite a number of specific names of land- and freshwater molluscs in Europe. Mr. Ellis included *Mytilus anatinus* Linnaeus, evidently intending to cover thereby the "*Anodonta* sp." instead of the correct one. Mr. Ellis' intention is demonstrated also by his accepting, as an editor of the *Journ. Conch.*, the use by A. G. Davis (24 : 110—1954) of the name *minima* Millet for the *Pseudanodonta* sp., and *anatina* for the *Anodonta* sp. Again, in the same volume, (*J. Conch.* 24 : 401—1960) he is mentioned by F. R. Woodward as having confirmed Woodward's determination of a specimen as *Anodonta*

minima (meaning the *Pseudanodonta* sp. which has for a long time been so named in England). The result was that the Commission accepted the name *anatina* as proposed by Mr. Ellis.

In 1956 Brander had already (*Ark. Zool.* (2) 9 : 175–182) given a thorough analysis of the whole case, with the correct interpretation as set out above, and also showing that *Anodonta minima* Millet, 1833 (*Mem. Soc. Agric. Sci. Arts d'Angers* 1831 [1833] : 241) is not conspecific with *complanata* Rossmäessler, as was until then assumed by almost all British authors. Millet's species is the very "rivulet variety" of *Anodonta* sp. so that his specific name must now be applied to the taxon previously known as *anatina*, and *anatina* must be applied to the taxon formerly known as *minima* if the extant types are accepted. The fate of Millet's name demonstrates once more the difficulties in keeping the two species separate, but no extra nomenclatorial trouble arises as *minima* Millet is junior not only to *anatina* Linnaeus but also to *piscinalis* Nilsson. Hence, efforts can be concentrated on finding the most suitable remedy for the situation of having a name on the Official List on erroneous premises and thus with false content.

(A) If the name *anatina* was not already on the Official List, it should no doubt be suppressed in order to clear the way for the oldest unambiguous names, i.e. *piscinalis* Nilsson for the *Anodonta* sp. and *complanata* Rossmäessler for the *Pseudanodonta* sp. This solution is still open for the Commission to choose—and seems to be the one preferred by Swedish malacologists. To me, however, the suppression and extraction of a name already on the Official List is a very serious thing to do and cannot fail to diminish strongly the authority of these Lists.

(B) The Commission can adopt a formal solution, maintaining that the name *anatina* is on the Official List, and that the type decides the actual species. This solution is, however, bound to cause profound and endless confusion between the two closely similar species involved, thus running counter to the Preamble of the Rules as now established. Also, it would appear most unfortunate if an application be allowed to lead to a situation which is exactly the opposite of that wanted by the applicant, and without any opportunity for him to interfere.

(C) The Commission can fix the present situation of the two names by setting aside the type material still extant and then adopt a neotype belonging to the *Anodonta* sp. as mentioned above. This is the solution which, in the present very intricate situation, I myself prefer, but I have not been able to get any help from Swedish malacologists in choosing a neotype among material in a Swedish museum and from Sweden. I have been forced, therefore, to choose a well preserved specimen from one of the easternmost localities in Denmark and well known by the Swedes—the moat around Copenhagen of which a part now forms a small lake in the Botanical garden. The specimen is briefly described in an annexe to the present application.

May I propose, therefore, that the Commission decides between the following possibilities:

PART I

for/against the use of its plenary powers

(for leads to solutions A or C)

(against accepts solution B, leaving the Linnaean types to determine the interpretation of the name *Mytilus anatinus*).

PART II

for solution A.

- (1) to use the plenary powers to remove from the Official List of Specific Names in Zoology the name no. 426 *anatinus* Linnaeus, 1758 and, having done so, to suppress that name for the Purpose of Priority.
- (2) to place the specific name *piscinalis* Nilsson, 1822, as published in the binomen *Anodonta piscinalis*, on the Official List of Specific Names in Zoology as name no. 426—replacing the former name *anatina* of that number.

for solution C.

- to use the plenary powers to set aside all type material for the species *Mytilus anatinus* Linnaeus, 1758 and—having done so—to accept as neotype for that species the specimen so designed in the annexe to the present application by H. Lemche.

Annexe

The specimen here proposed as a neotype for the species *Mytilus anatinus* Linnaeus, 1758 (after rejection under the plenary powers of the Linnaean type material of that species as unsuitable) is a double shell in the collections of the Universitetets zoologiske Museum in Copenhagen. The label runs as follows: "*Mytilus anatinus* Linnaeus, 1758 NEOTYPE selected from a sample from the lake in Botanisk Have, København, Danmark. —/12—1916. Legit C. M. Steenberg. Det. H. Lemche 1964."

Each valve has the measurements: length 123 mm, height 66 mm, width (of each shell) 20 mm. The apex of the left valve is intact and the right one has that region only very slightly damaged. The wavy structure on the initial parts of the shell is well preserved (fig. c) and distinctly goes across the lines of growth even though some of the periostracum has been lost in that place. Other particulars are to be seen in the accompanying figures (a-c).